EX PARTE OR LATE FILED

CC Docket No. 94-102

ENHANCED 911 FUNDING STUDY

For Wireless Telecommunications in Washington State

REVENUE
Department of Revenue

If you would like to request this document in an alternate format such as Braille, large print or audio tape, please call (360) 753-3217.

REPORT TO THE LEGISLATURE

ENHANCED 911 FUNDING STUDY
FOR
WIRELESS TELECOMMUNICATIONS
IN WASHINGTON STATE

WASHINGTON STATE DEPARTMENT OF REVENUE
FREDERICK C. KIGA, DIRECTOR

DECEMBER 31, 1998

STATE OF WASHINGTON
DEPARTMENT OF REVENUE
OFFICE OF THE DIRECTOR
P.O. Box 47450 • Olympia, Washington 98504-7450 • (360) 753-5574 • FAX (360) 586-5543

January 8, 1999

TO: The Honorable Gary Locke, Governor
The Honorable Jim West, Chair, Senate Ways & Means Committee
The Honorable Brian Thomas, Chair, House Finance Committee

FROM: Frederick C. Kiga, Director

SUBJECT: **REPORT ON IMPLEMENTATION OF E911**

This report is submitted to you pursuant to Chapter 346, Laws of 1998 which directed the Department of Revenue to conduct a study on the most efficient and cost effective way to implement enhanced 911 (E911) for radio access lines (wireless phones). Copies are being provided to Senate Ways & Means and House Finance Committee members and staff, as well as new Committee members who have been appointed for the 1999 session. Copies are also being provided to Senate Energy & Utilities and House Energy & Utilities Committee members and staff.

The report contains a considerable amount of information, including options for legislative consideration, which we believe will greatly assist the Legislature as it considers the best course of action to implement E911. It does not contain a recommended tax rate because we were unable to secure data from most of the wireless carriers on the estimated costs to implement and operate wireless E911 service in Washington. However, much of the information in the report has not previously been available, and we hope that it comprehensively covers the technical and operational aspects of 911 and E911 service. From our conversations with other states, many of whom are at the same stage as Washington, we believe they also will find the report of great use.

We hope that you will find the report useful in your deliberations on E911 issues. The report was prepared by Sue Graham of our Legislation and Policy Division who chaired the study group convened to address the issues required in the 1998 legislation. As always, the Department will be happy to answer any questions that you or your members may have about the contents of the report. Sue can be reached at (360) 753-4162 or by e-mail at sueg@dor.wa.gov.

cc: Members and staff of the Senate Ways & Means Committee
Members and staff of the House Finance Committee
Members and staff of the Senate Energy & Utilities Committee
Members and staff of the House Energy & Utilities Committee

Table of Contents

ACKNOWLEDGMENTS

The Department of Revenue appreciates the contributions to the report from the E911 wireless workgroup members, the technical subgroup members and staff from the Department of Revenue. The study group members include:

Chair:

Susan Graham	Washington State Department of Revenue

Study Group Members:

Representing the Wireless Industry:

Mike Gallagher	AirTouch Communications
Cliff Webster	AirTouch Communications
Ross Baker	AT&T Wireless Services
Tramell Alexander	GTE Wireless
Nancee Wildermuth	Nextel
Russell Sarazen	Sprint PCS
Judy Endejan	United States Cellular
Chris Johnson	Western Wireless

Representing the Wireline Industry:

Alan Kear	GTE
Doug Gehrke	US WEST

Representing Washington State Government:

Jim Schmidt	Office of Financial Management
Bob Oenning	Military Department
Dick Casey	Military Department
Fred Wilcox	State Patrol
Dave Griffith	Utilities and Transportation Commission
Tony Cooke	Utilities and Transportation Commission

Representing the State E911 Advisory Committee and Large Urban Counties:

Marlys Davis	King County 911
Jim Quackenbush	State E911 Advisory Committee

Representing the Small Counties and County Commissioners:

Bill Vogler	Association of Washington Counties
Millie Tirapelle	Grays Harbor County
Peggy Fonts	Grays Harbor County

The technical workgroup members included:

Chair:

Susan Graham
Department of Revenue

Technical Workgroup Members:

Representing the Wireless Industry:

Charlie Van Zandt	AirTouch Communications
JD Gaffney	AirTouch Communications
John Snapp	AT&T Wireless Services
Neil Boyer	AT&T Wireless Services
Andre Sterling	GTE Wireless
Vanessa Pegueros	Nextel

Representing the PSAPs:

Marlys Davis	King County 911
Marj Williams	Snohomish County 911
Ross Morris	Washington State Patrol

Representing the Phase I and Phase II Vendors:

Rod Proctor	Integrated Data Communications
Thomas Ginter	True Position
Suzie Craycroft	XYPOINT
Tim Zenk	XYPOINT

Representing the Wireline Companies:

Alan Kear	GTE
Doug Gehrke	US WEST

Representing State Government:

Bob Oenning	Military Department
Dave Griffith	Utilities and Transportation Commission

The following Department of Revenue Staff conducted primary research and prepared the final report:

Susan Graham, Study Manager, Legislation and Policy Division
Miki Gearhart, Research Analyst, Legislation and Policy Division
Lorrie Brown, PhD., Economist, Research Division
Mary Griggs, Word Processing Specialist, Audit Division
Beulah Holman, Office Assistant, Legislation and Policy Division
Debbie Dale, Administrative Assistant, Legislation and Policy Division
Cliff Ellenwood, Rules Policy Specialist, Legislation and Policy Division
Deanna Jackson, Graphic Designer, Taxpayer Services Division
Nicole Stewart, Tax Policy Specialist, Legislation and Policy Division
Donn Smallwood, Senior Policy Analyst, Legislation and Policy Division
James Thomas, Legislation Manager, Legislation and Policy Division

Special thanks go to the following people who worked on the report within their organizations:

AT&T Wirelesss Services:	Lori Buerger, Karl Korsmo, Greg Moore
GTE:	Russ Russell
Sprint PCS:	Charles W. McKee
United States Cellular:	Eva Wong
King County:	Kevin Kearns

The Department also thanks the King County Fire District Number 20 for providing facilities for the technical subgroup meetings, King County PSAPs for tours of their facilities, and the Washington State Military Department for providing facilities for workgroup meetings at Camp Murray, Washington.

1 EXECUTIVE SUMMARY

INTRODUCTION

In 1998, the Legislature directed the Department of Revenue to conduct a study of the most cost-effective and efficient way to implement wireless E911. The need for this study developed as a result of a 1996 order from the Federal Communications Commission (FCC) requiring wireless carriers to provide enhanced 911 (E911) service to their subscribers in two phases. Phase I called for the provision of a wireless 911 caller's phone number and cell sector location to the 911 centers by April 1, 1998, or 6 months after the wireless carrier received a request from the 911 center for service (whichever is later). Phase II required the provision of the location of the wireless E911 caller by October 1, 2001.

The FCC order also specified that wireless carriers only have to offer Phase I and Phase II service if the carriers receive a request for E911 service from a 911 center, commonly known as the Public Safety Answering Point (PSAP), if the PSAP requesting service is capable of receiving and using the data provided by the wireless carrier, and if there is a mechanism in place for the recovery of costs relating to the provision of E911 service.

Wireless carriers are working to fulfill the Phase I requirements of the FCC's wireless E911 orders. However, there is no cost recovery mechanism for E911 service in Washington State, and the PSAPs have no additional funding to pay for wireless E911 service.

To conduct the study, the Department appointed and chaired a study group, a technical workgroup, and a legal workgroup. The study group reviewed the study data, developed and analyzed some of the options, and reviewed the final report. The technical workgroup examined the current E911 infrastructure in Washington State, identified the technical components that have to be added to the current system to implement wireless E911, the types of costs and cost drivers for each technical component, and the technical challenges to implement wireless E911. The technical workgroup also developed the cost survey that was used to collect cost data for the study. The legal workgroup drafted the first chapter of the report that explains the legislative history and current issues relating to wireless 911 service.

A. FINDINGS

BACKGROUND OF WIRELESS E911 IN WASHINGTON STATE

In 1993, the Washington State Legislature directed wireless telecommunications companies to provide automatic number identification (ANI) to the PSAPs for wireless 911 callers. The Legislature also authorized counties to impose a county E911 wireless tax of 25 cents per month on radio access lines to fund the impacts of increasing wireless 911 calls on the PSAPs. The cellular companies operating in the state at that time said that they would provide ANI for their customers at no cost to the PSAP if the county tax rate was 25 cents per month.

The major cellular companies that were operating in the state at the time the ANI requirement was passed have provided ANI service to their customers in six counties at no charge to the PSAPs. A smaller cellular carrier and one of the new Personal Service Communications carriers are providing ANI at no charge to the PSAPs. This provides ANI to approximately 80 percent of wireless subscribers in Washington State.

Other carriers that are not currently providing ANI say that they will not do so until a formal mechanism is in place to reimburse carriers for the cost of providing full Phase I which means ANI and cell-sector location. These carriers argue that: (1) FCC Order 94-102 preempts RCW 38.52.560 because the state law is an obstacle to the accomplishment of E911, or (2) FCC Order 94-102 would prevail over RCW 38.52.560 if a party were to petition the FCC for express preemption, or (3) regardless of the preemption issue, wireless carriers should be compensated for providing E911 just as wireline carriers are compensated.

County officials and 911 coordinators say that companies are required by the statute to provide ANI with no direct reimbursement for the cost of providing that service because: (1) the major carriers operating in the state when the law was adopted agreed to absorb the cost of providing ANI, (2) wireless carriers are reimbursed for providing ANI through the benefit their customers received because the tax rate on those customers was set at 25 cents per month instead of 50 cents per month, and (3) the FCC has not preempted RCW 38.52.560.

The FCC has the authority to preempt state laws or regulations that conflict with or prevent wireless telecommunications companies from meeting their federally mandated requirements. As of December 31, 1998, the Department of Revenue does not know of any wireless carriers that have petitioned the FCC for the preemption of Chapter 38.52, RCW. To the Department's knowledge the FCC has not preempted the Washington State law.

WIRELESS E911 TECHNOLOGY

The E911 system is not capable of handling the digital information required to provide Phase I or Phase II service to wireless subscribers without additional technology.

Technology for Phase I is available and the companies are prepared to provide it when the PSAPs request it and there is funding available to pay for it. The wireless carriers have not chosen Phase II technology at this time.

Phase I and Phase II can be implemented simultaneously or in sequence. Technically, Phase I is imbedded in Phase II and will act as a back up if Phase II technology has system failures.

It is anticipated that upgrades to existing PSAP equipment will be necessary for Phase II. Also current county and city maps are not adequate to translate latitude and longitude into accurate street addresses and will have to be corrected.

The wireline telecommunications companies are currently upgrading their systems to improve technology to accommodate new telecommunications services such as number portability. A portion of this upgrade is directly attributable to implementation of wireless E911.

COSTS

If the wireless carriers provide Phase I service without using a Phase I vendor, then the costs include network and administration.

If the wireless carrier chooses to use a Phase I service vendor, then the costs include the network, administration, and the costs of the vendor's service. The wireless carriers pay the vendors per subscriber or per PSAP for Phase I service. The wireless carriers' costs are fixed because vendors typically place a cap on the charges to the wireless carrier.

The general cost drivers for Phase I service include network costs, the number of wireless and wireline carriers, the number of vendors, and the technical and legal staff time. The number of subscribers does not drive the costs for the Phase I technical components.

The Department was unable to determine an estimate of the total cost to implement Phase I service in Washington State based on the wireless carrier national cost data.

Based on the wireless carrier national cost data, wireless carriers say they will need reimbursement of no less than 20 cents per subscriber per month to no more than 33 cents per subscriber per month to initially recover both their non-recurring and recurring costs for Phase I service.

After the non-recurring costs are recovered, the carriers need reimbursement of no less than 15 cents per subscriber per month to no more than 27 cents per subscriber per month for Phase I recurring costs.

Based on the wireless carrier national cost data submitted in this study, if the PSAPs ordered Phase I service, they would pay a total of $16.3 million from 1998 to 2001.

If the PSAPs pay the cost recovery rates the wireless companies say they need, the PSAP's Phase I costs increase at the same rate as the increase in the number of wireless subscribers.

The PSAPs could inadvertently pay more than the wireless carriers costs once the wireless carriers fixed costs are met because the PSAPs have no way of knowing the vendor caps on the wireless carrier's costs.

It is anticipated that Phase II will require a mapping display at the call taker position. The estimated cost to replace PSAP equipment in 2001 for Phase II service totals $28.8 million. For the purposes of this report, the Department assumes $14.4 million will come from wireless 911 tax revenues and $14.4 million from the wireline 911 tax revenues. The PSAP equipment costs assume that there is no regionalization or consolidation of PSAPs and that every 911 call taker position in the state is equipped to handle Phase II service. There are 409 call taker positions.

The estimated cost to upgrade the 911 equipment and pay for maintenance agreements over the five-year equipment replacement cycle totals $50.7 million. This is $10.14 million per year. For the purposes of this report, the Department assumes $5.07 million will come from wireless 911 tax revenues and $5.07 million from the wireline E911 tax revenues.

Mapping costs vary widely depending on the degree of accuracy that is desired. Mapping costs can be as low as $1 million to correct current highway and road maps or as high as $18.6 million to map latitude and longitude for every parcel in the state. Cost should be shared for mapping because there are more parties than 911 centers who will use the maps.

FUNDING AND COST RECOVERY IN OTHER STATES

The wireless E911 funding mechanism chosen by the 13 states that have passed wireless E911 funding and cost recovery legislation typically includes monthly taxes or surcharges ranging from 32 cents to $1 per month per wireless connection or wireless phone number or wireless instrument. Either the state or local government imposes the tax or surcharge.

In some states the rate is fixed. In other states, there is a maximum rate that cannot be exceeded. State or local governments or a designated authority determine the tax rate to be imposed and may periodically adjust it.

None of the states said that they calculated their tax rates based on data provided by the wireless carriers on estimates of the actual costs to implement Phase I service in their states. Some states used the cost per subscriber rate that wireless carriers said they needed for cost recovery for Phase I service. Others equalized the E911 tax or surcharge rate for wireline and wireless phones. Some set a maximum rate that can be adjusted annually by a state or local government or other designated authority.

Some states list in statute who is eligible for reimbursement and the types of reimbursable costs. Other states do not specify the types of reimbursable costs in statute but authorize a specially appointed board, a state agency or local government agencies to determine the costs that are reimbursable.

Some states authorize payment of an administrative fee to the wireless carriers for the cost of collecting and remitting the tax or surcharge. The administrative fee ranges from one to three percent of the gross tax or surcharge collected.

All of the states have an administrative body to oversee cost recovery and provide confidentiality protection for proprietary information. This may be a state agency or a separate wireless board appointed by the Governor.

The wireless board duties and powers vary from state to state. Some have oversight only, with no rule making authority. Others have rule making, management, reimbursement and audit authority for wireless E911 implementation and ongoing operation.

The wireless E911 boards require some form of cost verification before the board will authorize reimbursement. Some boards hire an independent third party auditor to verify costs. Other boards require verification as requested or "sworn invoices."

THE COUNTY WIRELESS E911 TAX

Twenty-seven counties imposed the tax in 1994. The remaining counties imposed the tax between 1995 and 1998.

In 1997, the county E911 wireless tax revenue in 37 counties totaled $2.9 million. Eight large counties collected 82 percent ($2.4 million) of the total county wireless E911 revenue. The other 29 counties collected 18 percent ($.5 million) of total county wireless E911 tax.

There are no statutory provisions directing PSAPs as to the specific use of the county E911 wireless tax. Most of the smaller counties combine the wireless funds with other PSAP revenues for general operational costs. The larger counties are using the wireless tax revenues to fund additional personnel to handle wireless calls.

FUNDING WIRELESS E911 IN WASHINGTON STATE

The "bill and keep" option, where wireless carriers bill their own subscribers for the carriers' costs to provide the wireless E911 service and keep the revenues to pay for the E911 service costs, does not provide a stable funding source for wireless E911 service.

A state wireless E911 excise tax imposed on radio access lines on a monthly basis would provide a stable funding source.

There is no agreement on how to determine the state wireless E911 tax rate. The wireless carriers propose that the state tax rate be based on national cost data. The Department of Revenue proposes that the state tax rate be based on an estimate of total costs to actually implement wireless E911 in Washington State.

Some study group members would like the tax rate to be initially set at a level that would cover Phase I costs and build an adequate fund to pay for the wireless portion of the PSAP equipment upgrades for Phase II. Other study group members expressed concern that if the tax rate were set now, it would be based on the equipment replacement estimates for this study which did not take into account PSAP consolidation or regionalization or future technological changes. Consequently, this estimate may be high and would result in a greater tax burden on the wireless subscriber than will be actually necessary to pay for the wireless carrier portion of equipment replacement costs.

COST RECOVERY FOR WIRELESS E911 IN WASHINGTON STATE

Cost recovery oversight is necessary if the Legislature imposes a tax to fund wireless E911 because of the high level of accountability that is required for dedicated tax revenues and the need to disburse funds equitably.

Current wireline E911 oversight includes management of the PSAPs by local governments and the Washington State Patrol, and oversight of the implementation and operation of statewide E911 service by the State E911 Office and the State E911 Advisory Board.

The wireless carriers would like a new cost recovery oversight board for wireless E911 service comprised of representatives appointed by the Governor from at least the wireless carriers and the PSAPs. The PSAPs agree that there should be an oversight authority. They are not in agreement if this should be a separate wireless E911 board or part of the state E911 advisory committee. Unresolved issues include, but are not limited to, the structure of the cost recovery authority, the powers of the cost recovery authority, and the role of the state E911 office.

B. OPTIONS FOR LEGISLATIVE CONSIDERATION

The Department was not able to calculate an estimated cost to implement and operate wireless E911 service in Washington State and therefore could not calculate a tax rate that the Department was confident would produce adequate revenue. However, there is data from this report to suggest that there are options for legislative consideration regarding the implementation and operation of Phase I.

OPTION 1: WAIT TO FUND PHASE I SERVICE UNTIL MORE COST DATA IS AVAILABLE

There is no short-term harm done if the Legislature chooses to wait to fund Phase I. The level of 911 service that wireless subscribers are currently receiving will not likely change unless the FCC actually preempts the Washington ANI law. There is no indication at this time that the FCC will preempt the state law because no carriers have petitioned to have the law preempted. Companies can still meet their FCC mandate by contracting with Phase I and Phase II vendors so that they are prepared to implement E911 for wireless when the funding is in place. It may be possible to get more information on costs from the states that are currently implementing wireless E911 or doing cost studies. This data may be useful to model costs for Washington State. By waiting, more time is available to work out the details for Phase II such as mapping and equipment replacement. Costs may change as the carriers implement in different states and realize the actual costs involved for the service. Finally, the PSAPs may choose to consolidate or regionalize as a result of the provisions of the 1998 legislation (House Bill 1126) that authorized salary subsidization for PSAPs for three years in counties with populations of 75,000 or less. When the three-year salary subsidization expires on June 30, 2001, PSAPs will be eligible for permanent salary subsidization only if they consolidate or regionalize.

However, there are some disadvantages to waiting. Wireless customers will continue to receive a lower level of E911 service than the wireline customers. Eventually the overall quality of public safety response in Washington State will deteriorate as the percentage of 911 calls from wireless subscribers increases. The PSAPs and wireless companies will not be able to proceed with implementing wireless E911 service because there will be no source of funding for PSAPs to pay for the service. There is no guarantee that the Phase I cost information from other states will be applicable to Washington State to model Phase I costs.

OPTION 2: FUND PHASE I SERVICE

The wireless E911 funding mechanism that provides the most stability is a state wireless E911 tax based on radio access lines and collected monthly. The state E911 tax should be collected by the wireless carriers and remitted to the Department of Revenue. The tax

should be dedicated for the implementation of wireless E911 service and deposited in a separate wireless E911 account in the state treasury. The interest generated by the wireless E911 account should remain in the account for purposes of funding wireless E911 service. This would help offset the costs of Phase I and at a later date Phase II service. There should be an administrative mechanism to oversee cost recovery to insure accountability and equitable disbursement of the wireless E911 funds.

DETERMINING THE TAX RATE

There are two ways to determine the tax rate. One is to use national cost data to determine the tax rate. The other is to develop an estimate of the actual costs to implement and operate Phase I in Washington State and then determine the tax rate.

DETERMINING THE TAX RATE ON NATIONAL COST DATA

If the Legislature wishes to proceed with a tax rate based on national costs, the study data indicates that the tax rates range from no less than 20 cents to no more than 33 cents per subscriber per month. This range of rates insures cost recovery for non-recurring costs and recurring costs for Phase I service. Study data also shows that to recover Phase I recurring costs only, the wireless carriers need reimbursement of no less than 15 cents per subscriber per month to no more than 27 cents per subscriber per month. In discussions with the wireless carriers and in some of the cost survey data, the most common tax rate wireless carriers quote is 25 cents per subscriber per month. Study data shows that this may be low for the carriers with a smaller presence in the state.

The policy rationale for basing the tax rate on national costs is that Phase I would be implemented soon. If the effective date of the tax rate is July 1, 1999 and the PSAPs ordered Phase I service on July 1, 1999, the Phase I service should be in place by January 1, 2000. Actual costs will be known at that time because carriers will have been reimbursed.

DETERMINING THE TAX RATE BASED ON AN ESTIMATE OF WASHINGTON STATE COSTS TO IMPLEMENT AND OPERATE WIRELESS E911

If the Legislature wishes to move forward with the implementation of wireless E911 and determine a tax rate based on estimates of actual Washington State costs, the following suggestion outlines a methodology that the Legislature could use to obtain the cost information while guaranteeing the wireless carriers that there is a funding mechanism in place for Phase I.

> The Legislature imposes a wireless state E911 tax in the 1999 session at a maximum rate of 33 cents per radio access line per month. Delay the effective date of the tax until July 1, 2000. The law requires the wireless carriers to determine estimated Washington State costs to actually implement and operate Phase I. The wireless carriers submit the data to a neutral, confidential third party

for verification and aggregation. The Department of Revenue will determine a possible tax rate based on the aggregated cost estimate and present this information to the Legislature. The Legislature will set the tax rate during the 2000 legislative session based on the aggregated Phase I cost estimate. If the cost data is not forthcoming from the wireless carriers, then the tax authorization will be null and void. If sufficient cost data is forthcoming, tax collection begins for activity occurring on or after July 1, 2000, with the first tax remittances in September 2000. The appropriate body should develop a state Phase I implementation plan that correlates the service delivery to PSAPs with the tax remittances so that there is revenue to pay for the service. No PSAP can order Phase I service outside of the state Phase I implementation plan.

The policy rationale for this approach is as follows:

- If a wireless E911 tax passes, then the cost recovery mechanism for Phase I service is in place, provided that the wireless carriers supply the requested data.

- The study data shows that the highest substantiated cost to implement Phase I is 33 cents per subscriber per month. Since this number is substantiated, 33 cents is an acceptable maximum rate for the state wireless E911 tax.

- Data from the study shows that there is no compelling reason to build a large wireless E911 fund prior to the implementation of Phase I. There is no major equipment that has to be purchased for Phase I. There is also no reason that all the PSAPs have to be implemented at once.

- If the estimated costs to implement and operate the Phase I service were known in advance, it would be possible to develop a statewide Phase I implementation plan and correlate the Phase I service delivery and carrier cost recovery with the revenue collections.

- The counties will not be in the situation of ordering Phase I service without knowing the estimated costs.

- There is no guarantee that costs will be forthcoming by waiting until after the funding mechanism is in place. Other states have had trouble getting the costs after they imposed a tax for Phase I funding.

The Department of Revenue Policy Recommendations

If the Legislature chooses to fund Phase I with a wireless E911 tax, the Department of Revenue recommends that the Legislature provide guidance in three areas:

- *Should there be payment of an administrative fee to the wireless carriers for collecting and remitting the state E911 tax?*

- *Should there be a requirement that the wireless carriers divulge all information regarding costs including the cost caps for services purchased from vendors?*

- *If the Legislature sets the tax rate at a maximum amount and authorizes the flexibility to change the rate as Phase I expenditures become known, specific guidance about setting the tax rate should be given as to the agency or entity that has the authority to adjust the tax rate.*

1 INTRODUCTION

Chapter 346, Laws of 1998 directed the Department of Revenue to conduct a study on the most efficient and cost-effective way to implement E911 for radio access lines (wireless phones) and to evaluate the technical issues involved in implementing wireless E911. The Legislature directed the Department to convene a study group consisting of, but not limited to, representatives of the Office of Financial Management, the Military Department, the State E911 Advisory Committee, the Department of Revenue, and the Washington Utilities and Transportation Commission. The study group was to present its findings and recommendations to the governor and the appropriate committees of the Legislature no later than December 31, 1998.

To conduct the study, the Department appointed a study group, a technical workgroup and legal workgroup. The study group consisted of representatives from the Washington State Office of Financial Management, the Military Department, the State E911 Advisory Committee, the Washington State Utilities and Transportation Commission, the wireless and wireline carriers, the large and small counties, the county commissioners, the Washington State Patrol, and the Department of Revenue. The study group met seven times from May until November. The members reviewed all the data from the workgroups and the surveys, developed some options and the analysis for these options, and reviewed the final report.

The technical workgroup consisted of technicians and engineers from the wireless and wireline carriers, the Military Department, the Washington Utilities and Transportation Commission, county 911 coordinators, the Washington State Patrol, wireless E911 vendors (Integrated Data Communications, True Position and XYPOINT) and the Department of Revenue. The technical workgroup met seven times from June until October. The members examined the current E911 infrastructure in Washington State, identified the technical components that have to be added to the current system to implement wireless E911, the types of costs and cost drivers for each technical component, and the technical challenges to implement wireless E911. The workgroup also developed the cost survey that was used to collect cost data for the study.

The legal workgroup consisted of representatives from the wireless carriers, the large counties, XYPOINT and the Department of Revenue. The legal workgroup drafted the first chapter of the report that explains the legislative history and current issues relating to wireless 911 service. The Department of Revenue wrote the first draft and the workgroup worked via e-mail to edit the chapter. The workgroup met once in November to finalize the chapter contents.

The Department of Revenue conducted six surveys for this study. The surveys included the following:

- A cost survey to determine an estimate of actual costs to implement wireless E911 in Washington State. The wireless carriers that participated in the study completed the survey.

- A cost survey to determine the 911 equipment replacement cost for the 911 centers and the Washington State Patrol when the location technology is implemented for wireless E911. The county E911 centers and the Washington State Patrol completed the survey.

- A survey of the county and Washington State Patrol 911 answering centers to determine the 911 call volume for 1997.

- A county survey to determine the amount of wireless E911 tax collected in 1997.

- A mail and electronic survey of other states to determine what actions, if any, have been taken to address the implementation of wireless E911 nationwide.

- A phone survey of the states that have passed and are in the process of implementing wireless E911 legislation. The phone survey was followed up with a review of E911 wireless legislation in states that have passed wireless E911 legislation.

The Department also conducted in-depth interviews with the following 911 technology companies, consultants and mapping companies regarding the implementation of E911.

XYPOINT. A Seattle-based company that specializes in the technology to send the 911 wireless caller's name and cell sector location to the 911 answering centers.

TruePosition. A Pennsylvania-based company that specializes in technology that determines the location of a 911 caller by calculating the caller's latitude and longitude. Their technology involves adding location determination equipment to the current wireless network. A summary of TruePosition tests in different parts of the United States is found in Appendix I.

Integrated Data Communications (IDC). A Seattle-based company that specializes in location technology that is integrated into the wireless handset. IDC conducted a test in King County from July until November of 1998. The test included locating wireless callers that had handsets with built-in location technology and sending the location information to the 911 call centers and displaying the location on a map. The results of the test are included in Appendix I.

CHAPTER 1

BACKGROUND OF WIRELESS E911

INTRODUCTION

Chapter 1 provides an historical context for the development and current status of wireless 911 service in Washington State. This chapter consists of the following sections:

A. Overview of the Wireless Telecommunications Industry
B. History of Wireless 911 Service in Washington State
C. The 1996 Federal Communications Commission Order
D. 1998 Legislation
E. Current status of Wireless 911 Service in Washington State
F. Summary of Issues

When people want to report an emergency in Washington State, they dial the emergency access number 9-1-1. Dialing this number from a telephone connected by wires (i.e. a wireline phone) to the public switched telephone network will connect the caller to a 911 call answering center. The 911 call answering center is known as a Public Safety Answering Point (PSAP).

If the PSAP has only a Basic 911 system, the 911 call taker must ask for the phone number and location of the caller because this information does not automatically display at the PSAP. If the PSAP has an Enhanced 911 system this information automatically appears on the call taker's computer screen. If the 911 call is from a wireless phone, the 911 call taker will not receive this information on the computer screen at the PSAP regardless of the type of 911 system.

Throughout the report and in Appendix C, there are definitions that will help the reader understand the terminology used in the report. The following definitions cover the most common terms used in the report.

TERMS RELATING TO 911 SERVICE

Basic 911 is an emergency telephone system which automatically connects 911 callers to the 911 call answering center, known as the Public Safety Answering Point (PSAP), for the purpose of reporting police, fire, medical and other emergency situations. With Basic 911 service, the call taker asks the 911 caller for their phone number and location because this information does not display at the PSAP.

Enhanced 911 (E911) is an emergency telephone system that is capable of: 1) sending a 911 call to the PSAP that serves the caller; 2) automatic number identification (ANI); and 3) automatic location identification (ALI). With E911, the caller's phone number and address information automatically appears on the call taker's computer display at the PSAP. Currently E911 service for wireless phones is not available. When it becomes available, the caller's phone number and location information will automatically appear at the call taker's computer display at the PSAP.

Automatic Number Identification (ANI) is the automatic computer display at the PSAP of the telephone number of the phone being used to place the 911 call. This could be a wireline phone or a wireless handset.

Automatic Location Identification (ALI) is the automatic computer display at the PSAP of the address of the wireline telephone subscriber or the location of the wireless handset or cell site location. ALI also displays associated emergency response information, such as the fire, police, and medical services for the caller's area.

Public Safety Answering Point (PSAP) is a designated 911 call answering point. It is a facility equipped and staffed to receive 911 calls from a specific geographic area, which may be a city, county, or more than one county.

DEFINITION OF WIRELESS TELECOMMUNICATIONS

Wireless telecommunications is the group of telecommunications services under the heading of Commercial Mobile Radio Service (CMRS), as defined by the Federal Communications Commission (FCC). CMRS includes Cellular, Personal Communications Services (PCS), Mobile Satellite Services (MSS) and Enhanced Specialized Mobile Radio (ESMR). It does not include other forms of "wireless" communications such as paging and traditional dispatch.

Sources of information for this chapter include two reports to the Legislature: "Taxation of Cellular Communications in Washington State," November 1993 and "Enhanced 911 Excise Tax Report," July 1995, as well as Department of Revenue industry data; the 1996 Federal Communication Commission Docket 94-102, legal opinions from the wireless industry, King County Prosecutor's Office, and the Washington State Attorney General's Office, the State E911 Wireless Workgroup Data, legislative history from the wireless

industry representatives, and the National Emergency Number Association Master Glossary of 9-1-1 Technology.

A. Overview of the Wireless Telecommunications Industry

The concept of public wireless telephones using radio frequencies was developed in 1947. The first cellular system began operating in Chicago in 1983. From 1983 until 1992, there were two cellular telecommunications companies in each market and they provided the major wireless telecommunications service available to the public. In 1994, the wireless industry began to expand. Specialized Mobile Radio (SMR) licensees began implementing enhanced SMR systems to compete with cellular. In 1995, Personal Communications Services (PCS) carriers started to provide wireless service to the public, enabling competition between multiple wireless providers in a given area. As a result, the industry began to grow at a rapid rate. In December 1983, there were 91,000 customers nationally. Today, the Cellular Telecommunications Industry Association (CTIA) estimates that there are over 55 million wireless subscribers nationwide. These customers purchased over $27 billion in wireless telecommunications services in 1997.[1]

The FCC regulates wireless telecommunications companies.[2] FCC authority over the wireless industry includes licensing, certain technical aspects of wireless service, timeframes in which service must be made available in given areas, and the provision of Basic 911 and E-911 service. The FCC has the authority to preempt state laws or regulations which conflict with or prevent wireless telecommunications companies from meeting their federally mandated requirements. Federal law also prohibits states from regulating wireless telecommunication rates. The Washington Utility and Transportation Commission (WUTC) does not regulate wireless telecommunications.

In Washington State, there are approximately 1.25 million wireless subscribers.[3] Gross revenues for wireless companies in Washington State totaled $514.2 million in 1997. In the major urban counties, the industry grew at an estimated average rate of 23 percent from 1996 to 1997.[4]

In the Puget Sound region and elsewhere, AirTouch Communications, AT&T Wireless Services, GTE Wireless, Nextel Communications, and Sprint PCS provide wireless service. Soon Western Wireless and US WEST Wireless will also provide wireless

[1] CTIA Semi-Annual Data Survey results, December, 1997.

[2] The FCC issues licenses to the wireless companies to use a specific radio frequency. The wireless companies occupy different portions of the radio spectrum. Cellular communications uses the 824 to 893 MegaHertz (MHz) frequencies. PCS uses the 1.8 to 1.9 GigaHertz (GHz) frequencies. SMR uses the 800 to 900 MHz frequencies.

[3] Subscriber count as of September 30, 1998.

[4] The growth rate was calculated from the increase in the county E911 tax paid by twenty-nine companies, including the major facilities-based service providers and some of the resellers from 1996 to 1997.

service. Outside of the Puget Sound region, Blue Mountain Cellular, Inland Cellular, and US Cellular provide wireless service in certain parts of the state. These facilities-based carriers provide wireless service on separate networks. Various other companies re-sell these wireless services.[5]

B. History of Wireless 911 Service in Washington

In 1988, shortly after cellular service was commercially available in Washington State, the cellular carriers began sending all cellular 911 calls to the PSAPs, which included Washington State Patrol and county PSAPs. In 1989, there were 23,500 cellular 911 calls, which the PSAPs considered to be a manageable level of call volume. However, in 1993 there were approximately 292,500 cellular 911 calls.[6] The PSAPs claimed that the cellular calls were impacting the overall workload because they took more staff time to handle than wireline 911 calls. Most cellular callers did not know their location and their phone numbers and locations were not automatically sent to the PSAPs. Consequently, the call takers had to take the time to ask them for their phone number and for information regarding their location. PSAPs stated that their current funding was not adequate to absorb the workload impact of wireless 911 calls. The county 911 tax at that time was limited to wireline phones.

The 1993 Legislative Study

In 1993, the Department of Revenue and a committee of representatives from the Washington State Senate and House of Representatives, the cellular telecommunications industry, large and small businesses, wireline telephone industry (local exchange companies), and local government completed a report to the Legislature titled "Taxation of Cellular Communications."[7]

The committee concluded that the volume of cellular 911 calls resulted in increased workloads for 911 call takers and additional resources were needed to meet the demand. They also found that the time to handle the workload could be reduced if a call-back number was provided automatically to the 911 call taker and if automatic location identification was available.

---

[5] The number of wireless resellers in Washington State is not known. There is not a specific Standard Industrial Classification (SIC) code for the wireless resellers. Since the Department of Revenue classifies taxpayers by SIC code, there is no way to differentiate resellers from the other wireless telecommunications companies classified under the SIC code " radio-telephone and communications".

[6] "Taxation of Telecommunications in Washington State," November 1993, page 6-4.

[7] McCaw Cellular (Cellular One), US WEST NewVector (now AirTouch) and Inland Cellular were operating in Washington and participated in the 1993 study.
In 1992, the Washington State Legislature directed the Department of Revenue to conduct a study on the taxation of cellular communications. The study focused on property taxes, state and local excise taxes and the 911 tax. The final report was submitted to the Legislature on December 1, 1993.

In the discussion of tax options, some committee members proposed that the county 911 tax rate of 50 cents per month currently imposed on wireline telecommunications should also be imposed on wireless telecommunications. They felt that this would generate adequate funds for the counties and provide the same level of county 911 taxation for both wireless and wireline subscribers.

The two cellular carriers providing service in the majority of Washington State during this period, US WEST NewVector (now Airtouch Communications) and Cellular One/ McCaw Communications (now AT&T Wireless Services), disagreed with the 50-cent tax rate and proposed a 25-cent tax rate for the following reasons:

- A 911 tax of 50 cents per month would affect the bottom line total of the cellular customer's bill and would impact the customer's decision regarding use of the service.

- Their subscribers did not receive E911 services because E911 technology was not available for cellular. Their customers should not have to pay for services they were not receiving.

- Their customers should pay a reduced county E911 tax rate of 25 cents per month to offset the cellular 911 workload impacts. They noted that wireline industry data referred to in the report showed that the current 911 systems pay approximately 24 cents of the 50-cent county E911 tax back to the local telephone companies to purchase ANI, ALI and other network services. The other 26 cents goes for operations of the PSAPs.

- Cellular carriers provide free airtime for making calls to 911.

After much discussion, the committee agreed that basic and enhanced 911 systems for wireline and wireless needed a stable funding source. However, all the facts regarding current 911 funding were not known and the parties that would be affected by any changes to the 911 tax base were not on the cellular communications study committee. Therefore, the committee recommended that the Department of Revenue conduct a one-year study to examine the current 911 tax base and rate and make recommendations to ensure a long-term stable funding source in light of changing telecommunications technology.

The committee also recommended that the Legislature authorize counties to impose a county 911 tax on cellular subscribers of 25 cents per month. The 25-cent tax would begin in January 1994 and sunset one year after the long-term study was completed. In exchange for the lower tax rate, the cellular companies operating in the state at that time agreed to absorb the administrative costs for implementing and maintaining ANI and to continue providing free airtime for cellular 911 calls. In 1993, the cellular industry anticipated providing ANI as a 7 digit call back number.

Those cellular carriers also agreed to: 1) work with state and county 911 groups to introduce and support legislation in the 1994 legislative session that required all wireless telecommunications companies to provide ANI; 2) implement ANI by January 1, 1995; and 3) educate their customers on the efficient use of 911. The rationale for these recommendations was that the county 911 systems needed immediate solutions to address costs associated with increased service demands from cellular communications until the recommendations from the long-term study could be implemented in June of 1996.

THE 1994 LEGISLATION

The Legislature passed RCW 82.14B.030(2), Chapter 96, Laws of 1994. The legislation authorized the counties to impose an E911 tax on radio access lines at a rate of 25 cents per month but did not include a sunset date for the county E911 tax as recommended in the 1993 report. Not all of the counties adopted the tax immediately after it was passed. In the counties that did adopt an ordinance for the county E911 tax, it was imposed on all the cellular carriers' customers in the county and collected and remitted by the carriers.[8] None of the tax was used to compensate wireless service providers for their costs of providing ANI.

Chapter 96 Laws of 1994 also added a new section to the law that stated wireless providers "shall provide a system of automatic number identification which allows the 911 operator to automatically identify the number of the caller."[9] The statute did not include enforcement provisions. Nor did it include a provision that the cellular industry would implement and maintain ANI at no charge to the county 911 systems as recommended in the report.[10] The provision of ANI at no charge to the PSAP was an understanding by the cellular carriers that participated in the study, the counties, and the state based on agreements made in the 1993 study committee and the legislative testimony of the cellular carriers, the counties, and the Department of Revenue during the 1994 legislative session.

The legislation also directed the Department of Revenue to conduct a study on 911 funding and to submit the final report to the Legislature by July 1, 1995.

[8] See Appendix I for the dates that the counties adopted the wireless E911 tax.
[9] The new section was added to Chapter 38.52 RCW.
[10] "Taxation of Cellular Communications in Washington State," November 1993, page 6-6.

THE 1995 911 EXCISE TAX STUDY

In the 1995 911 Excise Tax Study, the study committee found that when the cellular companies began implementing ANI, they incurred unanticipated and significant interface and access charges to transport the 911 call from the wireless technology through the wireline telephone network to the PSAPs[11]. (At that time the "industry" still consisted only of the two original cellular carriers in each licensed area.) The cellular carriers also expected the costs to increase further with the provision of ALI which would require location-based coordinate points (such as latitude and longitude). Consequently, wireless ALI could result in changes in PSAP display equipment, computer aided dispatch systems, ALI database systems and any related equipment to accommodate the coordinate data. The committee also found that it was unknown if the current rate of county taxation on radio access lines, which is limited to 25 cents per radio access line per month, combined with the growth of the wireless telecommunications industry, would generate enough revenue for county 911 centers to cover the costs of providing wireless ANI.

When the committee discussed equalizing the wireless county E911 tax rate with the wireline E911 tax rate, the cellular industry maintained that since wireless ALI was not available to wireless customers, their subscribers should not have to pay for enhanced 911 services that they were not receiving. The cellular industry argued that the rate should only be equalized when wireless ALI was available to their subscribers. However, they did support a recommendation that the Legislature impose the state 20 cent E911 tax on radio access lines at the rate paid by wireline subscribers. The tax revenues were to fund planning for the future introduction of E911 with ALI for radio access lines and implementation when and if it was available. The funds were also to be used to assist counties that had already imposed all of the local 911 taxes, but still had a need for additional resources to cover unfunded costs. The unfunded costs needed to be shown to result from handling wireless 911 calls until ALI is commercially available to radio access line subscribers.

The legislation to implement the E911 Excise Tax Study recommendations did not pass in the 1996 legislative session.

[11] The Department of Revenue completed the study with the assistance of a committee that included representatives from the Washington State Senate and House of Representatives, County Commissioners, large and small businesses, County 911 Coordinators, cellular telecommunications companies, large and small wireline telephone companies, the State E911 Advisory Committee, and the State E911 Office.

C. 1996 FEDERAL COMMUNICATIONS COMMISSION ORDER

By 1996, the wireless industry had expanded to include PCS services, commercial enhanced SMR, as well as the incumbent cellular carriers. [12] The FCC recognized that there was a tremendous growth in the use of wireless phones to dial 911 and that a significant reason many customers purchased wireless telecommunications services was for safety and security, including the ability to call 911 for emergency assistance. The FCC sought to promote and improve the use of wireless technology for this public safety benefit. Yet the wireless carriers were only providing basic 911 service and not the enhanced 911 features of ANI and ALI. The FCC realized that there would be technical, fiscal, and political difficulties to overcome before wireless E911 could be implemented. It would take time and money to achieve wireless E911. Consequently, the FCC issued Docket 94-102 which orders, among other things, that wireless companies must: 1) transmit all basic 911 calls; and 2) provide E911 service in two phases to any PSAP requesting it, providing certain prerequisites are met. [13]

In Phase I the wireless companies have to provide ANI and cell sector location to the PSAP. [14] Cell sector location identifies for the 911 call taker the location of the antenna through which the wireless 911 call is being transmitted or processed. This may assist the 911 call taker in determining the area from which the wireless 911 call is being made.

In Phase II the wireless companies have to be able to technically provide the latitude and longitude of a mobile unit making a 911 call within a radius of no more than 125 meters (410 feet) in 67 percent of all calls by October 1, 2001.

The FCC established the following prerequisites which must be met before a wireless carrier is required to provide Phase I or Phase II Enhanced 911 service:

- Carriers must receive a request for E911 service from a PSAP.
- The PSAP requesting service must be capable of receiving and using the data provided by the wireless carrier.
- There is a mechanism in place for the recovery of costs relating to the provision of E911 service.

[12] The FCC auctioned PCS licenses in 1995 and PCS companies started to offer service in 1996.
[13] Report and Order and Further Notice of Proposed Rulemaking, 11 FCC RCD 18676(1996)
[14] Cell sector location is also known as pseudo-ANI or "P-ANI" which is a 10-digit telephone number associated with a particular cell site.

Additionally, once the wireless carrier receives a PSAP request for E911 service the carrier has 6 months to implement the service.

The FCC also concluded that state actions that are incompatible with Docket 94-102 are subject to preemption.[15] However, the FCC did not specifically preempt any state regulations at the time Docket 94-102 was issued. The FCC stated:

> "Since they [FCC] had not been presented with evidence that specific state regulations are, in fact, incompatible with national E911 goals, we shall not preempt any state regulations at this time. Instead we shall examine the need for specific preemption in the future on a case-by-case basis, relying on the guidelines expressed in this order."[16]

As of December 15, 1998, the Department of Revenue does not know of any wireless carriers that have petitioned the FCC for the preemption of Chapter 38.52 RCW. Nor to the Department's knowledge has the FCC preempted the Washington State statute.

D. 1998 LEGISLATIVE SESSION

After the FCC adopted its new rule on wireless E911, the wireless industry supported legislative language that would have provided Washington State with a cost recovery mechanism to implement the FCC's report and order. During the 1998 Legislative session, representatives of the wireless industry met with legislators to support an amendment to House Bill 1126. As it stood, House Bill 1126 maintained the 20-cent maximum state E911 tax rate on wireline phones and authorized the State to provide limited salary assistance to counties. The proposed amendment from the wireless industry established a cost recovery mechanism and provided the PSAPs with additional funding to meet their needs by increasing the county wireless E911 tax rate from 25 cents to 50 cents per month and imposing the state 20 cent per month E911 tax on radio access lines through a new tax on wireless customers. The proposed amendment to House Bill 1126 was not adopted. The Legislature approved House Bill 1126 and a budget proviso that directed the Department of Revenue to conduct a study on wireless E911 and submit a final report to the Legislature by December 31, 1998.

[15] There is a process for FCC preemption. A party petitions the FCC regarding the state law to be preempted. The FCC considers all comments and makes a decision. A party may ask for reconsideration of an adverse decision. Further reconsideration may be requested from the Federal Court of Appeals and then from the United States Supreme Court. To date the FCC has not had any petitions from carriers to preempt state law and consequently, has not undertaken the process of preempting state law.

[16] FCC Docket 94-102, paragraph 105, page 53.

E. CURRENT STATUS OF WIRELESS 911 AND E911 IN WASHINGTON STATE

Wireless carriers, the PSAPs, the state E911 office and the public safety community are currently grappling with the issue of how to provide wireless E911 consistent with the FCC order and RCW 38.52.560. At this time some, but not all, wireless carriers provide ANI to PSAPs in Washington. Of this group, some wireless providers provide ten-digit ANI. Others provide seven-digit ANI (the area code is eliminated with seven-digit ANI). Some PSAPs have requested ANI service under RCW 38.52.560, but have withdrawn their original requests for Phase I E911 service (ANI plus cell-sector location) which the wireless carriers are mandated by the FCC to provide upon receiving such a request. The PSAPs either withdrew their requests or have not requested Phase I due to the lack of a funding mechanism to pay for the service. The PSAPs assert that the wireless companies are obligated to provide ANI in accordance with RCW 38.52.560 and at no charge to the PSAP based on the original agreement by the cellular industry and the counties. RCW 38.52.560 has not been preempted by the FCC at this time, and no wireless carriers have petitioned the FCC for a ruling on this issue.

The wireless carriers assert that providing ANI only is in reality just providing one component of Phase I and is not consistent with the FCC's order. All wireless carriers are prepared to deliver Phase I upon receiving a request and cost recovery from the PSAPs. The core issue is related to funding to pay for the service. The wireless carriers claim that neither the federal law nor state law require them to provide ANI at no charge and that they will not provide Phase I without full cost reimbursement.

Currently, AirTouch and AT&T Wireless provide ANI to PSAPs in six counties:Snohomish, King, Pierce, Thurston, Spokane, and Clark. Recently, Blue Mountain Cellular and US West Wireless have agreed to provide ANI and are proceeding in that direction as they implement their service. These carriers do not charge the county PSAPs for the ANI service. Subscribers of other wireless telecommunications companies who live in other counties are able to place 911 calls, but no ANI service is provided.

WIRELESS COMPANIES' POSITION

There are several reasons why all wireless carriers operating in Washington are not supplying ANI to the PSAPs at this time.

Some carriers are having various and significant interface problems as they strive to comply with FCC requirements for Phase I. Sometimes the wireless carriers are able to send the caller's number but in a format which is incompatible with the existing E911 networks. One PCS company is currently routing calls over a trunk group that contains ANI in the signaling message. However, this data is unusable because other elements outside the PCS network must be upgraded to handle the signal. This carrier says it is

complying with the Washington law and that the FCC's order requires cost recovery for the necessary upgrades.

Other PCS, SMR and cellular carriers refuse to provide ANI service at no charge to the PSAPs because they say that the Washington State law does not specify that the service must be provided at no charge to the PSAPs and that FCC rules which set forth the prerequisites that must be met before a carrier must provide Phase I service (including ANI) prevail in this matter. These carriers point out that federal regulations have defined Phase I wireless enhanced 911 service as a single item of call back number and cell site location. The FCC does not allow a carrier to meet its requirements by providing partial Phase I service (i.e. ANI only).

At least one wireless carrier says the FCC order regarding Phase I service preempts the requirements of RCW 38.52.560. This carrier claims that preemption by the FCC does not require express preemption of contradictory state statutes. Rather, state law is preempted if compliance with both the federal law and state law is impossible or if state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of U.S. Congress. This carrier claims RCW 38.52.560, as interpreted by the counties, is an obstacle to the accomplishment of the objective of E911 service and is therefore preempted by the FCC.

Other carriers say that, if the enforcement of the existing Washington statute would require them to provide Phase I and thereby deny them the ability to recover legitimate costs as required under the FCC order, then a petition to the FCC for preemption would be warranted and would prevail.

Still other carriers argue that the wireline companies are compensated for their costs. The FCC order is clear on the need to compensate wireless carriers for their costs in providing E911. They say that it is only equitable that wireless carriers should be compensated for their costs in providing E911 in Washington State.

Wireless carriers are prepared to offer Phase I service in compliance with the FCC order. They have negotiated contracts with private vendors to provide ANI and cell sector location to the PSAPs. All wireless companies agree that an adequate funding mechanism for all of Phase I and Phase II needs to be in place.

COUNTY OFFICIALS' AND THE STATE E911 OFFICE POSITION

County officials, 911 coordinators, and the State E911 Office say that the companies are required by law to provide ANI at no cost to the PSAPs and are being reimbursed for ANI in accordance with current state law. Their reasons are:

a) RCW 82.14B.030(2) and RCW 38.52.560 have not been preempted by the FCC order. This means that the funding mechanism for wireless enhanced 911 systems (Note: wireless ANI only) described in the state law may continue. The state law

provides funding for the implementation of ANI for wireless customers through a reduced county E911 tax rate on wireless subscribers, as agreed to by the cellular companies who offered service in Washington State at the time this law went into effect.[17]

b) Agreement by the cellular telephone companies to provide ANI without reimbursement or payment in any form is a large part of the intent behind RCW 38.52.560. Washington law does not require reimbursement or payment for said costs to cellular telephone companies.

F. SUMMARY OF ISSUES

Both the wireless telecommunications companies and the 911 community agree that wireless E911 service is important to public safety and they are working together to try to establish a solution. However, the following issues remain unresolved and hinder the provision of wireless enhanced 911 services in Washington State:

- There are differences of opinion about whether the FCC order preempts the Washington ANI law, RCW 38.52.560 and replaces it with Phase I requirements. Or, if the FCC would preempt Washington ANI law if a petition were brought before the FCC to do so.

- It is not known if federal law means that wireless carriers are required to provide both components of Phase I (ANI and cell sector location) and precludes wireless carriers from providing just one component of Phase I if the PSAPs only request ANI.

- If the carriers were to provide ANI only, it is not clear whether the federal law means that they must be compensated for any portion of Phase I that they provide.

- RCW 82.14B.030(2) may not create a funding mechanism that would comply with federal law because it does not operate to reimburse carriers for enhanced 911 services.

- It is not known what funding mechanism should be used for wireless E911.

[17] It is not clear that the FCC ALI requirement was contemplated by the legislature when it enacted RCW 82.14b.030(2) and RCW 38.52.560.